A newsletter of the
LTAP
Issue Number 54, Spring 1997

Bulletin

Self-study Courses Available Through the USDA

By George Crommes, P.E.

I was searching the Net the other day and ran across another source of training for government employees. The materials which follow were adapted from the information of the U.S. Department of Agriculture Graduate School home page (http://grad.usda.gov/).

The USDA graduate school is a continuing education institution offering career-related courses to U.S. federal, state, and local government employees. More than 1,500 courses are provided worldwide yearly. The school was created in 1921. The name "Graduate School" reflects the schools staff rather than what they do. The school continues to serve adults who have "graduated" from full-time schooling in addition to many students who are beginning their adult educational experiences or training on the job.

Of the many activities of the school are correspondence and self-study programs.

Self-study

Self-study training courses are handled by the National Independent Study Center (NISC), a part of the graduate school. Courses can be completed at one's own pace. Most courses are designed to improve existing job skills or to develop new skills.

NISC courses are usually completed without instructor assistance but instructors are available to help by telephone, fax, or the Internet (http://grad.usda.gov/nisc/nisc.html). Each course contains at least one test and a few courses have assignments. NISC courses must be completed within six months. Upon completion, a certificate of completion is issued provided you have received a score of at least 75 percent on each test. CEUs are also available. Price vary from $75 to $150 per course. Examples of available self-study courses follow:

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T2

The Northwest Technology Transfer Center
TransAid-WSDOT

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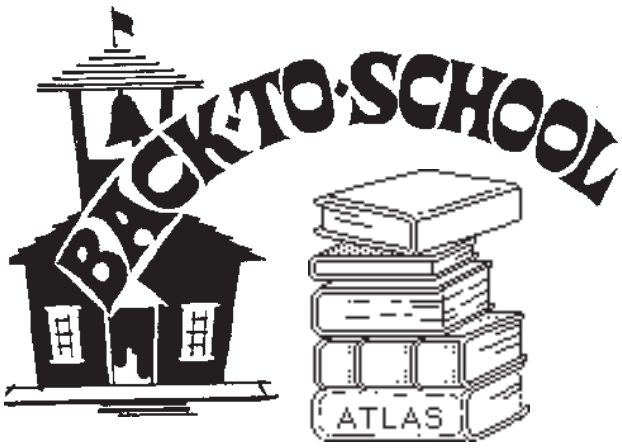
Courses on computer are indicated by (CBT)

- Assertive Supervision
- Basic Labor Relations
- Career Coach©
- Computer Keyboarding (CBT)
- Computer Security Awareness
- Controlling a Unit Budget
- Dealing with the Public
- Developing a Budget for a Unit
- Effective Work Delegation
- English Grammar and Usage
- How to Run a Small Project
- How to Write Effective Letters and Memos
- Improving Employee Performance
- introduction to Supervision
- Math Refresher
- Math Including Metrics (CBT)
- Medical Vocabulary (CBT)
- Metric (CBT)
- PC Literacy (CBT)
- Preventing Sexual Harassment in the Workplace
- Program Planning and Analysis
- Proofreading
- Put It In Writing
- Reading Comprehension (CBT)
- Solving Performance and Conduct Problems
- Speed Reading (CBT)
- Time Management



- Writing Analytical Reports
- Writing Short Informational Reports

Contact NISC at (303) 969-5800 or the Internet at www.grad.usda/nisc/nisc.html

Correspondence Courses

The USDA Graduate School also offers correspondence courses. Included are courses in accounting, administration and management, on-line communications, editing, English and writing skills, paralegal studies, library technology, mathematics and statistics, and sciences and engineering. There are over 100 self-paced courses. Prices vary with each course. Examples of courses and prices are:

Mathematics and Statistics Courses

- Everyday Business Mathematics, $231
- Basic Math, $168
- Trigonometry, $193
- Calculus I, $391
- Calculus II, $291
- College Algebra, $280
- Elements of Statistics, $272
- Sample Survey Methods, $300

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Science and Engineering Courses

- Hydraulics (Hydrostatics), $171
- Strength of Materials, $278
- Engineering Mechanics I (Statics), $216
- Engineering Mechanics II (Dynamics), $216
- Stormwater Management, $346
- Hydrology I, $307
- Hydrology II, $307
- General Physics I, $292

For more information on these and other correspondence courses, contact the correspondence program graduate school USDA, Stop 9911, Room 1112, South Independence Avenue SW, Washington, DC 20250-9911 telephone (202) 720-7123.•

Introducing Your New T^2 Training Coordinator

My name is Dave Kaiser and I am the new Training Coordinator for the Northwest T^2 Center. My primary duties include: development and/or presentation of workshops and conferences, providing technical analysis and review of T^2 Center workshop materials, and assisting local agencies in identifying their training needs and alternatives for accomplishing needed training. My first day on the job was April 16. George and Laurel are doing their best to get me up to speed on the T^2 Center activities, so please bear with me during my burn-in period as they 'Train the Trainer.'

I was graduated from Oregon State University in 1990 with a BS in Civil Engineering. Prior to graduation, I worked summers for the Jackson County Department of Public Works (White City, Oregon) was a surveyor and inspector. After graduation, I came to work for WSDOT. My jobs with WSDOT have included design, construction, workforce management, and program management.

Please call if I can help you with any of your training needs, or even if you would just like to talk about hockey. My number is (360) 705-7477.

Editor's Column

As your T^2 Director and editor of this newsletter, I am aware of the need for professionalism in our daily work life.

Regardless of job duties and assignments whether with an agency or company, most of us take pride in our work. "Professionals" abound in the public works field.

Which brings us to the definition of a "profession." Some have noted that the following characteristics make up a profession and hence a "professional."

1. **Specialized knowledge.**
2. **Usually extensive and long-term preparation for a career including work experiences and schooling.**
3. **A commitment to high standards of ethics and personal conduct.**
4. **A commitment to lifelong learning, and continued study to gain knowledge and enhance skills.**
5. **A commitment to work for which the main purpose is providing public service.**

Think about the above characteristics. Are you doing the five? If so, then take pride in your efforts of being true professionals.•

George

Disasters

By Terry Simmonds

Since November 1995, the state of Washington has experienced the worst and most expensive flood damage in the state's history.

November 95

The National Weather Service characterized the November 95 event as a 100-year storm. Over a seven-day period almost 19 inches of rain fell in the Aberdeen area and almost 20 inches on the west slopes of the Cascades. The foothills were already covered with a heavy snow pack when this started. Beside the heavy rains and the snow melt, many areas of western Washington received wind gusts in excess of 90 mph. All rivers and streams in western Washington reached or exceeded flood stage, and many rivers reached record heights, exceeding the flood records of the November 1990 floods.

Over 500,000 individuals were without power, lights, and heat, some for almost a week. The Governor proclaimed an emergency in 17 counties.

The estimated amount of damage just to public facilities was in excess of $38 million, of which over $20 million was to the transportation system including $10 million to state highways.

February 96

Then came the most expensive flood disaster in the state's history, February 1996. In a five-day period, almost 13 inches of rain fell in the Raymond area, and 19 inches on the east slopes of the Cascades. Like the November event, the foothills were already covered with a heavy snow pack when this began.

The rail lines running from west to east, all mountain passes from eastern to western Washington, and I-5 in the Centralia/Chehalis area were closed for three days. At one time, 39 state routes were closed in the state making travel very difficult if not impossible.

The Governor proclaimed an emergency in 24 counties.

The estimated amount of damage just to public facilities was in excess of $250 million, of which over $148 million was to the transportation system including $36 million to state highways.

November 96

Eastern Washington saw an unusual ice storm affecting Pend Oreille, Spokane, and Klickitat Counties in November 96. Most of the $30 million in damage was to trees and downed power lines.

December 96

The December 96 disaster began with snow storms, followed immediately by an ice storm, which started the floods of January. By the way, at the same time this weather event was occurring, the Yakima area had a small earthquake.

Beginning on December 26 and for four days, snow accumulations ranged from 18 inches in the Seattle area, 30 inches in the Bellingham area, westside of the Cascades 40 inches, to over a foot in Spokane. During these four days, some areas of the state saw the snow turn into heavy ice accumulations. The fifth day saw what people refer to as the "Pineapple Express" and for the next two days as much as 4 inches of rain fell accelerating the snow and ice melt causing rivers and streams to exceed their banks throughout the state.

All rail service was closed in the state, all mountain passes from eastern to western Washington and SR 14 along the Columbia Gorge were closed for up to four days. At one time, 30 state routes were closed.

For the first time in the state's history, the Governor proclaimed all 39 counties as an emergency.

The estimated amount of damage just to public facilities was in excess of $56 million, of which over $42 million was to the transportation system including $10 million to state highways.

March 97

Again the rivers in Washington exceeded their banks causing disruption and damage. While the field assessments are still being conducted to determine the impacts of the event, the preliminary information does not indicate that the damage will be near that of the past 16 months.

The Governor proclaimed an emergency in 24 counties.

The preliminary estimated amount of damage just to public facilities was in excess of $26 million, of which over $10 million was to the transportation system including $4 million to state highways.

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Rules Changed for School Crossings

By Edwin Lagergren, P.E.

In 1995 and 1996, WSDOT was involved in a multi-agency project to improve the safety of children walking to and from school. Two products were produced: (1) *A Guidebook for Student Pedestrian Safety* and (2) a prioritized list of walkway improvement projects submitted by local agencies in cooperation with local school districts. The project was instrumental in the allocation of $3,000,000 in Power Washington money to fund some of these improvements.

During the project, the technical committee agreed that the Washington Administrative Code (WAC) that describes what signs are necessary at school crossings needed updating and clarification. This WAC is administered by the Superintendent of Public Instruction. The updates were the result of the Department of Highways changing to the Department of Transportation and the change to the City Street/State Highway threshold for maintenance activities from 15,000 to 22,500 population. The clarification was to reduce the discussion that sometimes takes place when schools request the 20-mile per hour school speed zone at signal controlled and stop sign controlled crossings. The last two paragraphs of the WAC were also modified to emphasize that solutions to problems are best solved by cooperation of all interested parties. The revised WAC is at the end of this article quoted exactly as stated.

The second paragraph, third sentence of the WAC states, "When crossings are controlled by a traffic signal or by a stop sign, the use of the school speed limit sign may be necessary following an engineering study." Since the adoption of the WAC, I have been asked, "What type of engineering study would be performed and what results would indicate that the school speed limit is necessary at a traffic signal or stop sign." Studies or conditions present that could be used to determine if the school speed limit sign is warranted are listed below:

1. Speed studies to determine the actual travel speed versus the posted speed. A higher actual speed may warrant the school speed zone.
2. An engineering study to determine if drivers are obeying the signal indications or stop signs during the hours of school crossing. Running red lights has become a major problem in some areas of the country.
3. If a crossing is protected by a stop sign in one direction but not in the other direction and is school patrol controlled, the crossing would be classified as a school patrol controlled crossing. Consideration should be given to implementing a school speed limit in both directions. I suspect this situation is not common.
4. If there is a sight distance problem that a 20 miles per hour school zone would alleviate.
5. At signalized intersections, unprotected left turns or right turns that can be made at high speeds and conflict with the side street pedestrian crossings.

Probably the most important aspect of this WAC rewrite is the acknowledgment that improving student pedestrian safety requires a cooperative effort of all concerned parties.

I hope this article will help you with your school signing. If you have any questions, please call me at (360) 705-7986.•

WAC 392-151-030 Controlled crossings. "School patrol controlled" crosswalks are defined as any crosswalk which is attended by a student or adult guard, and which is not controlled by a traffic signal or stop sign. School patrol controlled crossings shall not be operated unless proper traffic control devices are in place as depicted in Washington state department of transportation, *Sign Fabrication Manual* and *Manual on Uniform Traffic Control Devices*, as now or hereafter amended. As a minimum, these shall consist of:

(1) School crossing warning signs S1-1 and S2-1

(2) Marked crosswalks

(3) School speed limit sign

"School patrol assisted" crosswalks are defined as any crosswalk which is attended by a student or adult crossing guard and controlled by a stop sign, traffic signal or law enforcement officer. When crossings are controlled by stop signs, the S2-1 may be omitted. When crossings are controlled by a traffic signal or by a stop

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Management Systems Continue

By Dan Sunde

For the most part, the removal of the federal mandate requiring management systems has had little effect on WSDOT's TransAid's management system activities for cities and counties in Washington. From the beginning, Washington's approach to management system development has been to use existing laws, processes, and procedures wherever possible, and to only create new processes where they provide additional benefit worth the resources required. As a result, TransAid has continued to support and promote the use of pavement management among cities and counties through development of implementation manuals, guides, and videos.

Support material for pavement management includes:

- *Pavement Surface Condition Rating Manual*
- Pavement Surface Condition Rating Video
- Pavement Surface Condition Rating Classes
- *A Guide for Local Agency Pavement Management*
- *Local Agency Pavement Management Applications Guide*
- *StreetWise — A Simplified Local Agency Pavement Management System*
- *PaveSmart — Pavement Management Software and Users Guide*

TransAid has also coordinated the development of a safety management system for local agencies with volunteer representatives from cities, counties, TIB, CRAB, and other service centers within WSDOT. A guide for implementation of local agency SMS is currently in draft form and being finalized for agency review.

Additional support for management systems is being provided with Geographic Information System (GIS) support. In the future, TransAid plans to provide support in congestion management also.•

Guide Available on the Telecommunication Act of 1996

The National Association of Counties (NACo) has released *Implementing the New Telecommunications Law: A County and Local Official's Guide to the Telecommunications Act of 1996*. The guide includes an overview of the Telecommunications Act and section on how the legislation affects county zoning authority, with particular attention to the zoning of cellular towers; management and compensation for the use of public rights of way; and local government taxation of telecommunications services.

The cost of the book for a NACo member county is $19.95 and $24.95 for a nonmember county. To order, call NACo at (202) 942-4209.•

In the News

☑ Value Engineering Analysis Required on NHS

The Federal Highway Administration (FHWA) has issued a final rule which requires that value engineering (VE) analysis be conducted for all federal aid highway projects on the National Highway System costing more than $25 million.

VE analysis is used during the development of highway projects to improve the construction process and reduce costs. The final rule issued by FHWA in the February 14 Federal Register serves to implement provisions of the National Highway System Designation Act of 1995.

Under the final rule, effective March 17, 1997, FHWA is establishing a program that requires the application of a VE analysis for all federal aid highway projects with an estimated cost of $25 million or more. Information and guidance on performing VE reviews are also contained in the Federal Register notice.•

(Source: AASHTO Journal, February 28, 1997)

☑ International Municipal Signal Association

65th Annual Conference

Yakima • July 13-17,1997

The 65th Annual IMSA conference and school will be held at Cavanaugh's at the Yakima Center on July 13-17. A technical and social program is planned. Certification programs will be available for Level II Sign and Markings, Level II Traffic Signal Technician, and Level II Traffic Signal Electrician. Study guides and reference manuals are required and must be obtained from IMSA International Office for each applicant.

Sessions are planned on MUTCD changes, NTCIP controller standards, railroad signals, computer sign manufacturing, and traffic issues on the Internet.

Vendors of traffic products will display their materials Sunday afternoon until Tuesday afternoon. A block of rooms has been set aside and will be released on June 22.

Questions? Contact Steve Knopp, Committee Chair at (509) 576-6425 or Dave Winton at (509) 576-6431.•

☑ Wet Detention Pond Design for Highway Runoff Pollutant Control

Current and proposed regulations typically require on-site control to reduce the amount and concentration of potential pollutants in highway stormwater runoff. Wet detention ponds (those with a permanent pool of water) are among the least documented pollutant-control systems in highway settings and have exhibits of widely varying degrees of efficiency. Dry detention pond design has not proven satisfactory; ponds designed for large storms do not effectively treat runoff from small storms and those designed for small flows are subject to clogging.

Washington State University has been awarded a $400,000, three-year contract (NCHRP Project 25-12, FY 1996) to develop a methodology for designing efficient wet detention ponds in the highway environment. This methodology will include characteristics, design guidelines, conditions, limitations, and applications for use. A comparison will be made between wet ponds and dry detention ponds to demonstrate the advantages and disadvantages of each system.

For further information, contact Lloyd R. Crowther, TRB at (202) 334-3427, E-mail lcrowthe@nas.edu.

(Excerpted with permission from TR News/186 September-October 1996, Transportation Research Board, National Research Council, Washington, DC)

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sign, the use of the school speed limit sign may be necessary following an engineering study.

Contract shall be made by school authorities with the governmental agency having jurisdiction over the street or highway in question in order to secure the necessary signs. The state department of transportation shall be contacted concerning all state highways outside of incorporated towns and cities and on those state highways with the incorporated limits of towns and cities with a population of 22,500 or less. On state highways within the incorporated limits of cities with a population of 22,500 or more, the city public works department shall contacted.

The county highway department shall be contacted regarding all county roads. On city and town streets, which are not state highways, within the incorporated limits of cities and towns, the city or town street or public works department shall be contacted.

When school officials and/or the safety advisory committee determines that vehicular traffic volumes are such that adequate safe gaps in the traffic flow do not occur in reasonable frequent intervals to allow safe crossings by students, this condition, as well as any other related traffic issues, shall be evaluated cooperatively with the traffic engineering authorities having jurisdiction in order that necessary studies can be conducted for the purpose of developing possible alternative measures.

Where conditions are such that a patrol member cannot be seen at least as far away as the safe stopping distance for the legal speed at the location, one of the following procedures shall be carried out:

(1) Select a safer location for the crossing at which the patrol is to serve.

(2) Cooperatively evaluate the condition with traffic authorities having jurisdiction for the purpose of developing possible alternative measures.

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A Recap

The total amount of damage to public facilities is in excess of $400 million of which over $220 million was to the transportation system including $60 million to state highways.

The Department of Transportation's first responsibility is to protect the infrastructure and provide safety to the traveling public during disasters.

Immediate action includes, but is not limited to, traffic control, temporary detours, debris clean-up, information to the traveling public, and damage assessment. Permanent action includes, but is not limited to, debris removal, slope stabilization, erosion control, temporary detour removal, re-vegetation for soil erosion control, and permanent repairs.

WSDOT's next responsibility is to support the Washington State Comprehensive Emergency Management Plan.

The department is responsible for coordinating all disaster transportation missions (air, marine, rail, public transit, and the use of the highway system).

The department provides support to local governments, state agencies, federal agencies, and Indian tribes. Examples of assistance during the above mentioned disasters include:

- Aviation Division rescued 39 people from the Skokomish River valley by a WSDOT helicopter.
- Truck loads of sand to the Hoh Indian Reservation to assist in sandbag operations.
- Truck loads of rip-rap to assist Jefferson County to protect a county road.
- Provided traffic control devices to assist the city of Puyallup and Thurston County.
- Sent bridge inspectors to evaluate bridges in Snohomish County.
- Provided snow blowers and plows with crews to rescue stranded motorist during the snow storm in Whatcom County.
- State Ferries made a special run to move five plows and crews to San Juan County to remove snow to allow emergency crews to reach isolated people (mostly elderly) and to move them to shelters during the snow storm.
- State Ferries moved sandbags from Snohomish County to Kitsap County.
- The department made two special runs, moving emergency PUD trucks and crews from eastern Washington to western Washington over White Pass by snow plowing one lane for access during the height of the storm.

These examples represent some of the department's efforts to provide support to communities during disasters.•

New Research Proposed by AASHTO

(Much of the research by AASHTO also is applicable to local governments as well as the various states. The proposed research by AASHTO for FY 1998 highlight the need for answers to many transportation issues and problems.)

The American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Research (SCOR) met in Washington, D.C., March 25-26, and approved a proposed FY 1998 program for the NCHRP with a projected cost of $14.5 million.

A primary role of SCOR is to develop a proposed annual research agenda for the National Cooperative Highway Research Program (NCHRP), which must then be approved by the Transportation Research Board.

As of March 1997, some 117 NCHRP research projects are underway, sponsored by 19 AASHTO committees.

For the proposed FY 1998 NCHRP program, an estimate of expected funding had to be selected, since reauthorization of the federal aid highway program has not been decided by Congress. SCOR agreed to use an estimate of $14 to $15 million for developing the proposed research agenda assuming federal support for FY 1998 will be at about the same level as for FY 1997. A list of 38 projects was approved totaling some $14.525 million, which includes continuation of 13 research projects previously underway and 25 new projects. Two additional projects totaling some $675,000 were approved on a contingency basis, if funds become available.

Approved new research projects were:

- Heavy Duty Vehicle Emissions _____ $100,000
- Short-Term Monitoring for Compliance With Air Qualify Standards _____ 500,000
- Assessment of Means to Improve the Compatibility of Vehicles and Roadside Safety Hardware _____ 300,000
- Residual Life Assessment of Concrete Girders Subjected to Corrosion-Related Deterioration _____ 400,000
- Effect of Increasing Truck Size and Weight on Bridge Life _____ 400,000
- Thermally Sprayed Metallic Coatings to Protect Steel Piles _____ 300,000
- Design of Highway Bridges for Extreme Events _____ 400,000
- Comprehensive Specification for the Seismic Design of Bridges _____ 500,000
- Test Suite of Bridges for Software Validation _____ 250,000
- Additional Research on Geometric Design Consistency _____ 150,000
- Investigation of "Forbidden Zone" in SHRP Superpave Aggregate Gradation Specification _____ 400,000
- Quality Characteristics of Hot-Mix Asphalt Pavements for Use in Performance-Related Specification _____ 450,000
- Guidelines for Geofoam Applications in Embankment and Slope Stabilization Projects _____ 200,000
- Criteria for Flowable Fill in Backfill _____ 300,000
- Thermoplastic Pipe Design Procedure _____ 500,000
- Evaluation of Tensioned Systems in Geotechnical Applications _____ 500,000
- Scour at Contracted Bridge Sites Flood and Field Data _____ 500,000
- Bridge Scour in Fine-Grained Sediments/Soils _____ 350,000
- Effect of Incremental Channel Shift on Bridge Scour _____ 300,000
- Snow and Ice Control Treatment Materials and Methods _____ 600,000
- An Evaluation of Conflicting Design Speed and Operating Speed Applications in Project Design and Traffic Operations __ 500,000
- Implementation of "Manual for Scientific Inquiry into Transportation Problems: Research Methodologies" _____ 200,000
- Criteria for Linear Spatial Data Quality, Analyses and Integration with GPS for Location Referencing _____ 300,000
- Systems Approach to Implementing Research and Changing Current Practices __ 125,000
- Incorporating ITS in the Transportation Planning Process _____ 300,000

SCOR also approved in concept a proposal to explore Canadian participation in U.S. pooled fund studies, including the NCHRP program, and work to develop a form arrangement between AASHTO, NCHRP, FHWA, and the Canadian Council.

(Source: AASHTO Journal, Vol. 97, No. 14, March 28, 1997)

Free Publications From Your T² Center

For Washington recipients only.

Name _____

Agency _____

Address _____

City and Zip _____

Phone _____

Check those items you would like to order.

___ Highway Utility Guide, FHWA

___ Traffic Conflict Techniques for Safety and Operations — Observers Manual, FHWA 1989

___ Scrap Tire Utilization Technologies, NAPA

___ State-of-the-Art Survey of Flexible Pavement Crack Sealing Procedures in the United States, CRREL (1992)

___ Maintenance of Aggregate and Earth Roads, NWT² Center (1994 reprint)

___ International State-of-the-Art Colloquium on Low-Temperature Asphalt Pavement Cracking, CRREL

___ The Engineer's Pothole Repair Guide, CRREL

___ Geotextile Selection and Installation Manual for Rural Unpaved Roads, FHWA

___ Municipal Strategies to Increase Pedestrian Travel, Draft 1994, Rhys Roth, Energy Outreach Center

___ Guide to Safety Features for Local Roads and Streets, FHWA (1992)

___ Family Emergency Preparedness Plan, American Red Cross, et al.

___ Fish Passage Thru Culverts, USDA, FHWA, 1990

___ Local Low Volume Roads and Streets, ASCE, 1992

___ Snow Fence Guide, SHRP

___ The Superpave System – New Tools for Designing and Building More Durable Asphalt Pavements, FHWA

___ A Guide to the Federal-Aid Highway Emergency Relief Program, USDOT, June 1995

___ Asphalt Seal Coats, T² WSDOT

___ Pothole Primer — A Public Administrative Guide, CRREL, 1989

___ Manual of Practice for an Effective Anti-Icing Program, FHWA, 1996

Workbooks and Handouts From T^2 Center Workshops

___ Planning and Implementing Pedestrian Facilities in Suburban and Developing Rural Areas, TRB 1987
From the workshop "Walkable Communities: Designing for Pedestrians"

___ Handbook for Walkable Communities, by Dan Burden and Michael Wallwork
From the workshop "Walkable Communities: Designing for Pedestrians"

___ Traffic Calming: A Guide to Street Sharing
From the workshop "Walkable Communities: Designing for Pedestrians"

___ Planning, Design, and Maintenance of Pedestrian Facilities, FHWA, 1989

Video

___ Walkable Communities: Designing for Pedestrians
Videotape of the class by Dan Burden. Four tapes, 5.5 hours. Available for purchase ($75) or can be borrowed by local agencies. Washington Traffic Safety Commission has scholarships that can be used for the purchase of these tapes. Call T^2 Office for further information.

Brief (One- to ten-page) Handouts

___ Asphalt Pavement Recycling, Crommes, Montague, 1993

___ Eye and Face Protection: Safety Goggles, Parlay, 1991

___ Individual Productivity – Understanding What Makes It Happen, Crommes, 1994

___ Know the Dangers of Confined Spaces, Parlay, 1991

___ Mitigating Road Hazards, Crommes, 1991

___ Operator Daily Maintenance of Motor Graders, Adapted from LAT^2 Center, 1989

___ Roadway Safety: Where Does it Rank on Your List of Priorities?, Penn T^2, 1992

___ Standing on Your Own Two Feet: And Other Reasons to Use Foot Protection, Parlay, 1991

___ Tool Tips — Working Safely with Hand and Portable Power Tools, Parlay, 1991

___ Tips for Reducing Tort Liability (articles from various sources), 1992

___ How to Coach a Winning Team, Louisiana State University

___ Depression is Serious Business, Parlay, 1991

___ Respiratory Protection, Maintaining Your Respirator, Parlay, 1991

___ SHRP's New Work Zone Safety Devices — The Intrusion Alarm, SHRP, 1992

___ Think Snow — Now!, Adapted from Utah T^2, 1990

___ Do You Communicate When you Talk?, NACE and LAT^2 Center

___ The (WA) Law on Hard Hats, NWT^2, 1993

___ Standing By at a Confined Space, Parlay, 1991

___ The Ten Commandments of Political Engineering, CAT^2 Center, 1992

___ HITEC (Highway Innovative Technology Evaluation Center) Brochure, 1996

Orders may be faxed, mailed, or phoned to Laurel Gray
Phone: (360) 705-7386,
Fax: (360) 705-6858
Mailing Address: NWT^2 Center,
WSDOT/TransAid, P.O. Box 47390,
Olympia, WA 98504-7390

NCAT Expands and Updates Hot Mix Asphalt Textbook

The National Center for Asphalt Technology (NCAT) at Auburn University, Auburn, Alabama, has released the second edition of the textbook *Hot Mix Asphalt Materials, Mixture Design and Construction*. The completely revised, updated book was expanded to 585 pages and includes much new information.

The textbook on hot mix asphalt (HMA) is also a reference for anyone wanting to know more about asphalt technology. The second edition includes new sections covering stone matrix asphalt, Superpave performance grade (PG) asphalt binders, Superpave mix design, and asphalt modifiers.

Updated material includes the latest information on asphalt refining, aggregates, HMA mix design, characterization of asphalt mixtures, equipment and construction, performance and distress, and the maintenance, rehabilitation, and reconstruction of HMA.

Distribution of the book is being handled by the National Asphalt Pavement Association (NAPA). The price is $60 plus shipping costs. Quantity discounts are available. NAPA's toll free order number is (888) 468-6499. The book may also be ordered by fax at (301) 731-4621, or through NAPA's home page at www.hotmix.org•

(Source: Adapted from NAPA News Release, April 11, 1997)

John Cook Receives National Award

John Cook, P.E., Washington State University professor emeritus was recently awarded a nationally recognized Faculty Service Award. Cook has served as chair of the WSU Road and Street Maintenance Supervisor's Schools and the Road Builders' Clinic for over a quarter-century.

Nominated by WSU Conferences and Institutes, the award is sponsored by the Conferences and Institutes Division of the University Continuing Education Association.

WSU Conferences and Institutes said, "The Road Builders' Clinic and Road and Street Maintenance Supervisors' Schools — east and west have made it through recessions, cutbacks, government shutdowns, floods, and storms. They have survived and been strengthened under the leadership of John Cook. The quality of these programs and the commitment by those who repeatedly attend these programs are a result of Mr. Cook's vision and knowledge of this field."

The award was presented at the 48th Annual Road Builders' Clinic, March 12 in Coeur d'Alene, Idaho. Michael Kyte, cochair of the conference from the University of Idaho announced that Cook will hand over

John Cook (left), professior emeritus receives national award for Outstanding Faculty Service. Rafik Itani (right), will chair the WSU road programs, beginning in the fall of 1997.

his duties as cochair beginning in 1998. The Road Builders' Clinic is sponsored jointly, between the University of Idaho and Washington State University. Rafik Itani, Chair of WSU's Civil and Environmental Engineering Department presented the award. Itani will chair the Clinic on an alternating basis with Kyte beginning in 1998.•

Opportunities to Enhance Your Skills

For more information, contact the training provider listed. For additional training needs contact the Northwest T² Center at (360) 705-7477 or 1-800-973-4496.

Classes and Workshops

NWT² Center, WSDOT
(360) 705-7477, Fax (360) 705-6858
http://www.wsdot.wa.gov/transaid/nwt2.htm

Spring roadshows began in March. John Easley notes that roadshows are booked for the remainder of spring. If interested in a fall session, please contact the Center early.

Access Management, Location and Design. June. Seattle area. $100. 3 days.

Preventative Maintenance Treatments. June 30, Tacoma; July 2, Moses Lake. Free.

Innovative Materials Workshop. July 1, Tacoma; July 3, Moses Lake. Free.

Geosynthetics Engineering Workshop. July 15, Spokane. $90. 1 day.

Slope Maintenance and Slide Restoration. July 24, Spokane. $50. 1 day.

Community/Corridor Traffic Safety Program. August, Tacoma area and Everett area. $50. 2 days.

Improving the Effectiveness of Public Meetings and Hearings. September, Tacoma area and Everett area. $100. 2 days.

Stream Stability and Scour at Highway Bridges. September, Kent. $125. 3 days.

WSDOT Environmental and Engineering Services
Contact Jim Sundahl at (360) 705-7483
http://www.wsdot.wa.gov/eesc/environmental/Training2.htm

Wetlands Recognition, Regulation and Resource Value (Wetlands 101). May 29, Seattle.

National Transit Institute
(908) 932-1700, ext. 19
Contact Susan Greenstone

Contract Administration. July 14-18, Seattle. Free.

Public Involvement in Transportation Decision Making. September 10-12, Seattle. Free.

Transit Safety Institute
(405) 954-3682
Contact Marge Carr

Transit Industrial Safety Management. August 4-8, Seattle. Free.

Transit System Security. September 22-26, Richland. Free.

OSHA Training Center
(800) 326-7568, Fax (206) 685-3872

Trainer Course, OSHA Standards for General Industry, OSHA 501. June 9-12, Seattle OSHA Training Center; July 21-24, Portland Community College. Bring a current copy of OSHA Regulation. 29 CFR 1910 to class. $525.

University of Washington Engineering Professional Programs
(206) 543-5539
http://www.engr.washington.edu/~uw-epp/

Innovations in Municipal Anaerobic Sludge Digestion: Design, Operations, Meeting 503 Regulations. June 17 and 18. $325 (early registration), $355.

Use of Constructed Wetlands for Improving Stormwater Quality. June 10 and 11. $315 (early registration), $345.

Basics of Project Management for Design Professionals. September 9, 11, and 16. $180 (early registration), $205.

Recent Advances in Municipal Wastewater Treatment: Doing More With Less. September 17 and 18. $325 (early registration), $355.

Effective Writing for Technical Professionals. September 18, 23, 25, 30 and October 2. $300 (early registration), $330.

Alternative On-Site Stormwater Management Techniques. September 23 and 24.$315 (early registration), $345.

Seismic Hazard Analysis for Constructed Facility Sites. October 24 and 25. $315 (early registration), $345.

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Specifications and Construction Techniques for Stream and Wetlands Projects. November 5 and 6. $315 (early registration), $345.

Stormwater Treatment by Media Filtration. December 11 and 12. $315 (early registration), $345.

TRANSPEED-UW
Call Keir Whitson
(206) 616-9094
http://www.engr.washington.edu/~uwepp/Transpeed/trans.html

Culvert Hydraulic and Structural Design. May 27-29, Lacey. $180.

MUTCD Workshop. June 2-4, **Seattle**. $180 plus $20 lab fee.

Roadway Value Engineering. June 4-6, Spokane; November 17-19, Seattle. $180.

Traffic Signal Operations Workshop. June 9-10, Seattle.

Traffic Calming: Techniques and Management. June 19-20, Spokane; September 25-26; Vancouver. $150.

Roadway Geometric Design. June 23-25, Spokane. $180.

Advanced Highway Capacity Analysis. July 8-10, Seattle. $180 plus $95 lab fee.

Legal Liability for Transportation Professionals. September 15-16, Seattle. $150.

Hydrology and Basic Hydraulics. September 17-18, Seattle. $150.

GIS Applications in Transportation. September 30-October 2, Seattle. $180 plus $95 lab fee.

Public Works Construction Project Management. October 9-10, Seattle. $150.

Construction Inspection of Public Works Projects. October 13-14, Seattle. $150.

Basic Roadway Pavement Design. October 23-24, Vancouver. $150.

Applied Highway Economics. November 20-21, Seattle. $150.

ASCE
1-800-548-2723
http://www.asce.org/

Construction Project Administration and Claims Avoidance. June 5-6, **Seattle**. $595 (members), $755 (nonmembers).

Wetlands and 404 Permitting. July 31, Seattle. $345/$395.

Fred Pryor Seminars
1-800-255-6139

Training the Trainer. June 24, Bellevue; June 23, Everett; June 19, Kennewick; June 25, Olympia; June 17, Seattle; June 20, Spokane; June 18, Tacoma; June 17, Wenatchee; June 18, Yakima; June 20 Beaverton; June 26, Portland. $149.

Traffic Institute-Northwestern University
1-800-323-4011

Fundamentals of Geometric Design Workshop (Metric Units). June 23-27, Seattle. $700.

Washington State Department of Personnel (DOP)
(360) 586-2720

Classes open to state and local agency personnel based upon space available. Some courses have a "charge back fee." Other classes are offered in Tri-Cities, Vancouver, Walla Walla, Wenatchee, and Yakima. Contact DOP for their latest catalog.

Supervisory Challenge Correspondence Course. Self-paced. Statewide.

Entry Management Development Core Program-Phase 1. June 2-5, Olympia; June 16-19, Spokane.

Internet Basics. June 4, 13, Olympia.

Basic First Aid (1 or 2 days). June 11, June 26-27, Olympia.

Dynamics of Motivation. May 30, June 16, Olympia.

Disability Awareness Workshop. June 17, Olympia.

Sexual Harassment Awareness and Prevention. June 25, Olympia.

Evergreen Safety Council
(206) 382-4090
1-800-521-0778
Fax (206) 382-0878
http://www.esc.org/

Employee Safety Orientation and Communications. June 2, Spokane; June 9, Portland.

Practical Workplace Ergonomics. June 3, Spokane; June 10, Portland.

Fire Safety and Emergency Response. June 5, Seattle.

Lift Truck Instructor Certification. June 9-13, Seattle; July 14-18, Portland.

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Traffic Safety and Office Safety. June 18, Seattle.

Computer Programs

The following computer programs may be downloaded from the Internet at http://www.wsdot.wa.gov/transaid

Design Cost Estimate. A software database program that calculates cost projections based on standard items.

Materials Approval Tracking. A software program designed to track materials data, need, status, and approval of any materials sampling and documentation needed for approval.

HyperCalc. A shareware utility for converting between metric and English units.

Force Account Macros. A series of ready-made Excel spreadsheets and macros to save you time on daily force account calculations and reports, including wage and equipment rates.

APWA CAD Symbol Standards and Menus. A public domain program of standard AutoCAD symbols developed by the Washington Chapter of APWA for use with AutoCAD release 12.

Conferences and Meetings

WSAC Annual Conference. June 24-27, Downtown Red Lion, Spokane.

1997 International Highway-Rail Grade Crossing Safety Conference. July 19-23, Madison Hotel, Seattle. Contact (409) 845-5817.

National Pavement Management Workshop. July 20-22, New Orleans, Louisiana. Sponsored by FHWA and LADOTD. Contact G. Jones (202) 366-1337 or James Lee (504) 379-1836 or Catherine Nicholas (360) 753-9412.

3rd International Symposium on Intersections Without Traffic Signals. July 21-23, Portland, OR. Contact (888) 884-3246.

8th International Conference on Asphalt Pavements Design, Construction, and Performance. August 10-14, Seattle.

ASCE Airfield Pavement Conference. August 17-20, Seattle, 1-800-548-2723.

International City/County Management Association (ICMA) Annual Conference. September 14-17, Vancouver, B.C.

ASCE Annual Convention. October 5-9, Minneapolis, Minnesota.

1997 Western Bridge Engineers' Seminar. October 6-8, Coeur d'Alene, Idaho. Contact Jean Canfield (360) 943-7732.

Road and Street Maintenance Supervisors' School-East. October 7-9, Spokane.

APWA Fall Conference (joint with Oregon). October 21-24, Red Lion, Columbia River, Portland, Oregon.

US Hot Mix Asphalt Conference. October 29, 31. Phoenix, Arizona.

WSAC Legislative Conference. November 12-14, West Coast Everett Pacific.

AASHTO Annual Meeting. November 14-18, Salt Lake City, Utah.

Road and Street Maintenance Supervisors' School-West. December 3-5, Bellevue.

2nd International Conference Composites in Infrastructure. January 5-7, 1998, University of Arizona.

Geotechnical Earthquake Engineering and Soils Dynamics Conference. August 1998, Seattle. Contact Panos Kakoulas at (713) 527-4667.

The International Conference on Low-Volume Roads. May 23-27, 1999. LSU, Baton Rouge, Louisiana.

A newsletter of the Local Technical Assistance Program (LTAP)

Issue Number 54, Spring 1997

Bulletin

The Technology Transfer Center (T^2) Program is a nationwide effort financed jointly by the Federal Highway Administration (FHWA) and individual state departments of transportation. Its purpose is to translate into understandable terms the latest state-of-the-art technologies in the areas of roads, bridges, and public transportation to local highway and transportation personnel.

Any opinions, findings, conclusions, or recommendations presented in this newsletter are those of the authors and do not necessarily reflect the views of WSDOT or FHWA. All references to proprietary items in this publication are not endorsements of any company or product.

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TransAid Service Center

U. S. Department of Transportation
Federal Highway Administration

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